

IRRIGATION ARRANGEMENTS IN DAVIDSON COUNTY, NORTH CAROLINA

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IRRIGATION ARRANGEMENTS IN DAVIDSON
COUNTY, NORTH CAROLINA

A Report of an Irrigation Survey in Davidson
County, Conducted in the Summer of 1962

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Introduction

This is one of a group of reports of irrigation surveys made in the summer of 1962 covering eleven North Carolina counties. The surveys are part of a research project concerning arrangements by water users in selected areas of North Carolina to secure water sources. Conducting the surveys was James E. Martin, Jr., currently a second-year law student at the University of North Carolina, under the supervision of Milton S. Heath, Jr.*

Briefly, the purpose of the irrigation surveys is to examine and analyze the following factors:

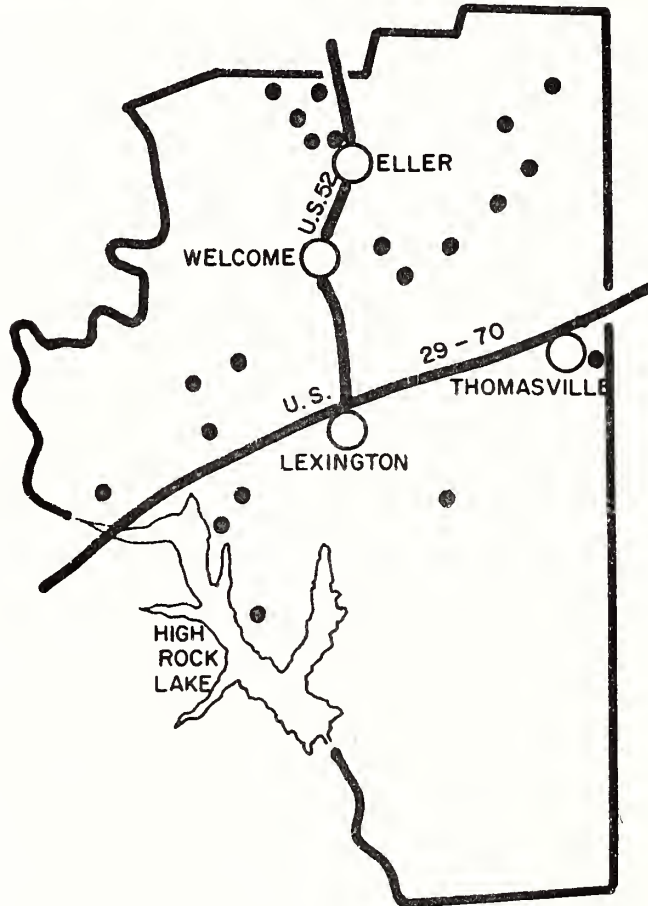
- .The nature and magnitude of farm irrigation in selected areas.
- .The types of crops irrigated.
- .The sources of water used.
- .The legal arrangements made by the irrigators to secure their sources of water, including purchase of land or water rights, agreements among irrigators and other water users concerning water use, permits required, etc.
- .Any disputes that may have arisen over sources of water affecting these irrigators, and the outcome of the disputes.

With this and other information developed through the research project, it is hoped that an accurate evaluation can be made of the operation of the existing structure of laws and political institutions affecting water use, of its weaknesses and strengths, and of its impact on water resource development.

The procedures followed in this survey are described in detail by Water Resource Paper No. 2. Briefly, the known irrigators were identified with the assistance of county agents and Soil Conservation Service personnel, and then were personally interviewed. A prepared questionnaire was used as a point of departure for the interviews.

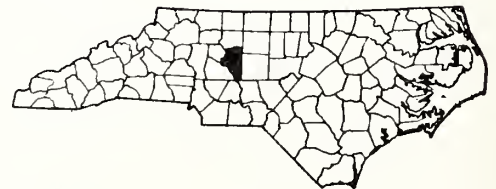
*Water Resource Paper No. 1 contains a description of the over-all research project. Water Resource Paper No. 2 summarizes the 1962 irrigation surveys and reviews the procedures followed on the surveys.

IRRIGATION IN DAVIDSON COUNTY



Key:

- REPRESENTS AN ACTIVE IRRIGATOR WHO WAS CONTACTED IN THIS SURVEY DURING THE SUMMER OF 1962.



General Review of Irrigation
in Davidson County

The farmers who were contacted in Davidson County irrigate tobacco, truck crops and pasture-alfalfa. The tobacco and truck irrigators are concentrated north of Highway 29/70, while south of the highway only pasture or alfalfa are irrigated.

One of the largest--perhaps the largest--of irrigation operations in North Carolina is located in Davidson County near Lexington. This is Eastern Dehydration Company, successor to Coble Dairy Company, which irrigates as much as a thousand acres of alfalfa. The dairy concern acquired a system that employs over a thousand sprinklers and includes a quantity of fixed (buried) mains. The major source of water is High Rock Lake, with some reliance also on ponds.

Summarized Results of Survey

1. Extent of coverage

Suggested list of irrigators (SCS Unit Conservationist and County Extension Chairman)--24

Farms reporting irrigation in 1959 U. S. Census of Agriculture--26

Persons contacted--25

Active irrigators contacted--18

Estimated number of irrigators in Davidson County (authors' estimate)--22

2. Time required for conduct of survey in Davidson County

2-1/2 days for interviewing irrigators and others

3. Water sources

Ponds--16

Continuous Flow Ponds--14

Surface Ponds--2

Streams--8

Combination of Sources (ponds, streams)--6

Note: The information concerning water sources, including the classification of types of ponds, was derived from the irrigators themselves, not from personal inspection by the authors. An explanation of the terminology used here--e.g., "continuous flow ponds"--will be found in U.N.C. Water Resource Paper No. 2.

4. Types of crops

Tobacco (14 farms)

Largest farm--14 acres

Smallest farm--1.5 acres

Average farm--5.86 acres

Truck (4 farms--2, 20, 4, 1.5 acres)

Pasture and alfalfa (6 farms--18, 3, 1000, 9, 12, 40 acres)

Combination Farms (6 farms)

It should be noted that the figures given above reflect the acreage irrigated and not necessarily the actual acreage of the respective farm.

5. Water usage

There are no reliable data available and no mechanical measuring devices are in use. (See Water Resource Paper No. 2 for further comment.)

6. Expansion

No expansion planned--16

Expansion planned--2

7. Disputes over water, etc.

None reported

8. Purchase of water rights or agreements concerning irrigation

None reported

9. Acquisition of riparian lands, easements, etc.

None reported

10. Recent irrigation trends

Owners of irrigation systems are using them during dry periods; however, most farmers seem to irrigate only as a last resort due to high costs involved. The large irrigation system of Eastern Dehydrated is operated regularly at selected stages of the alfalfa crop.

Acknowledgments

SCS Unit Conservationist Joseph R. Adair, Jr., and Davidson County Extension Chairman C. E. Bernhardt gave us invaluable help in identifying and locating irrigators. We are very grateful to them, and to State Conservationist Richard M. Dailey and Howard Ellis of the State College Department of Engineering Extension for their usual generous co-operation.

The map at page 3 was prepared by Charles Nakamura of the Institute of Government.

